

Figure 1

200

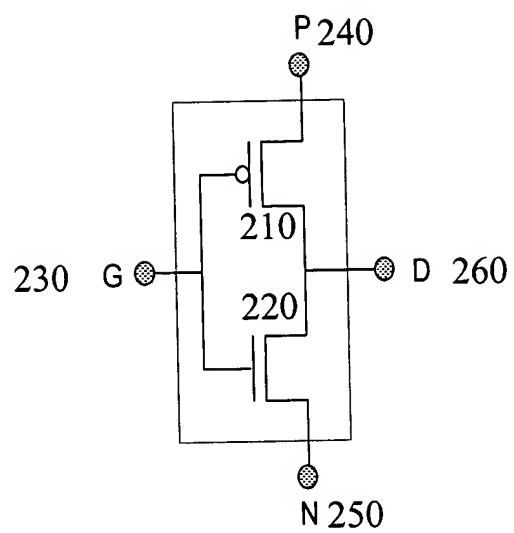


Figure 2

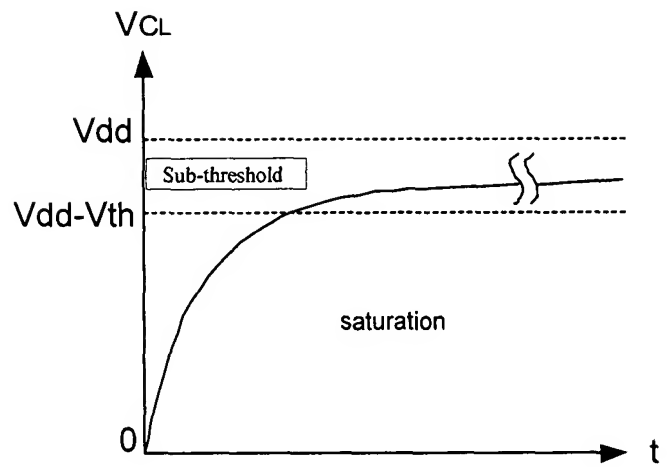
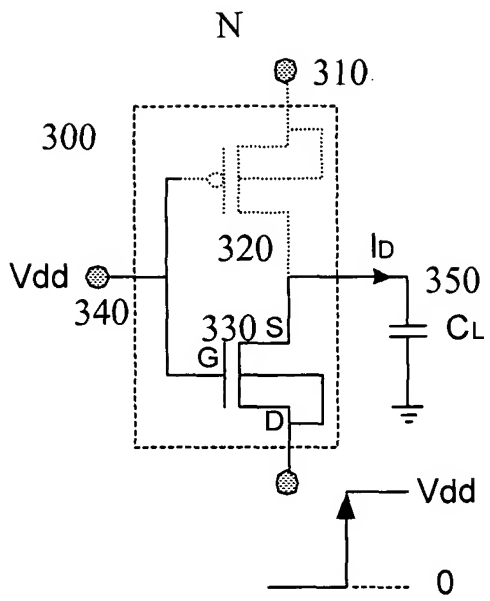


Figure 3

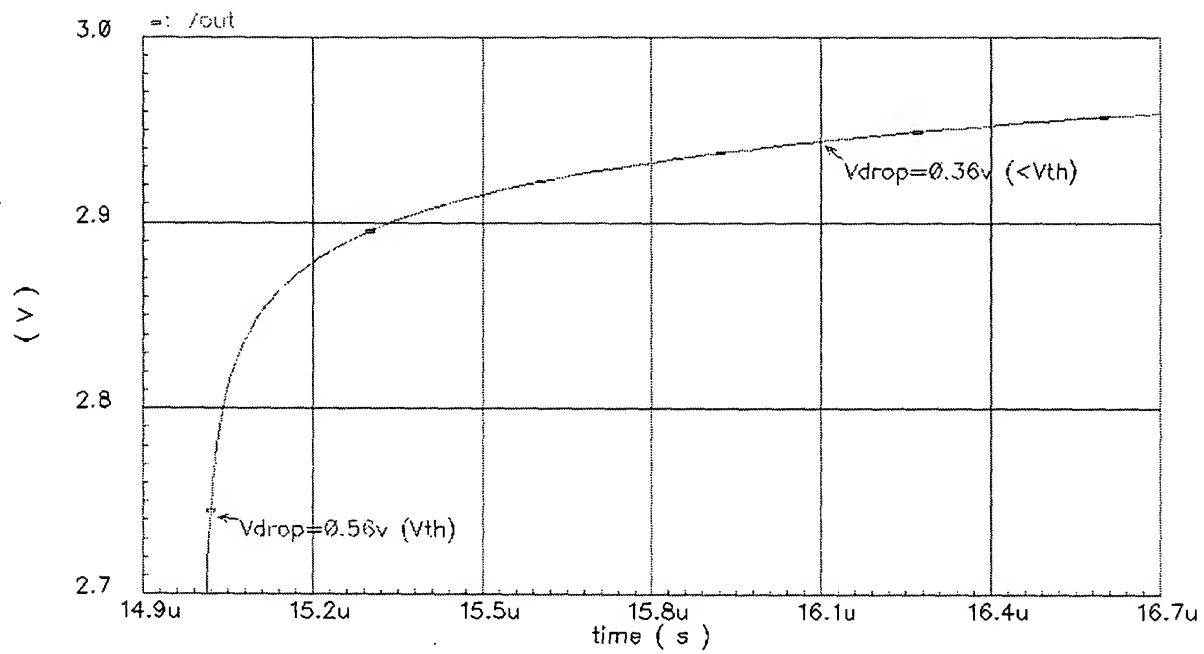


Figure 4

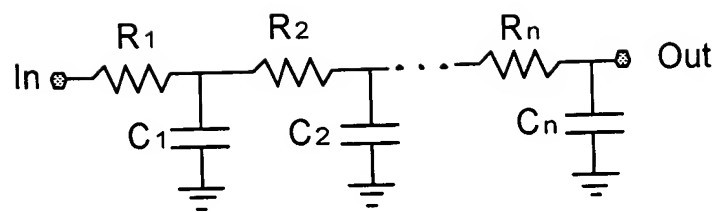


Figure 5

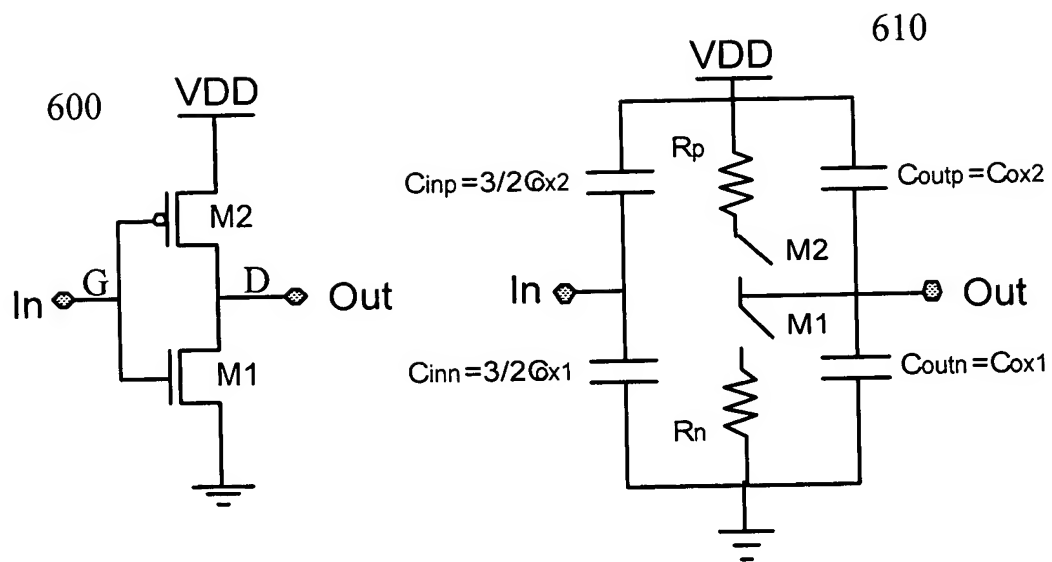


Figure 6

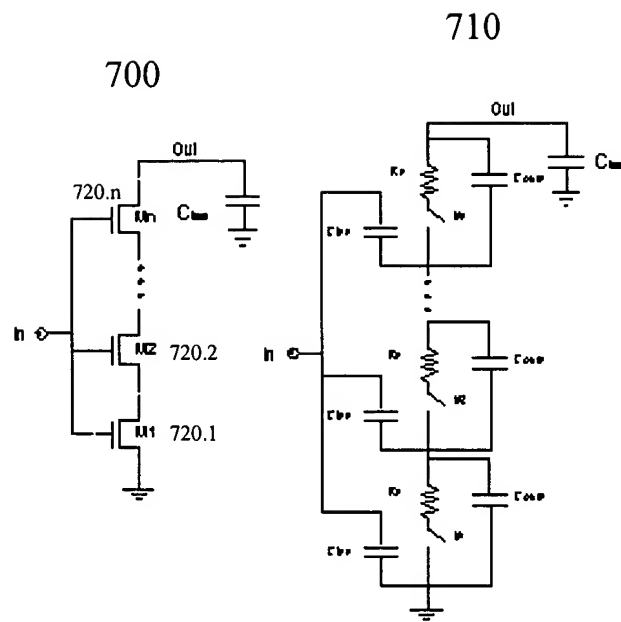


Figure 7 - Prior art

800

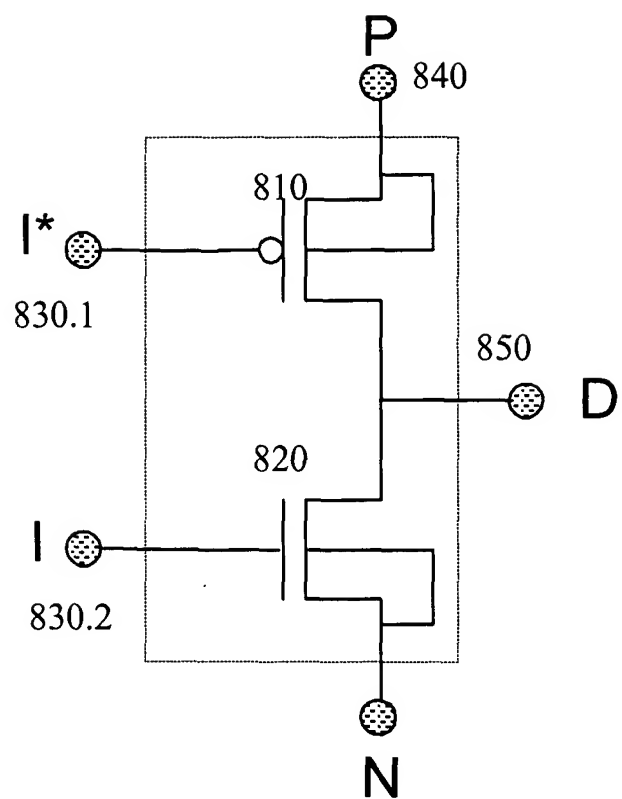


Figure 8

900

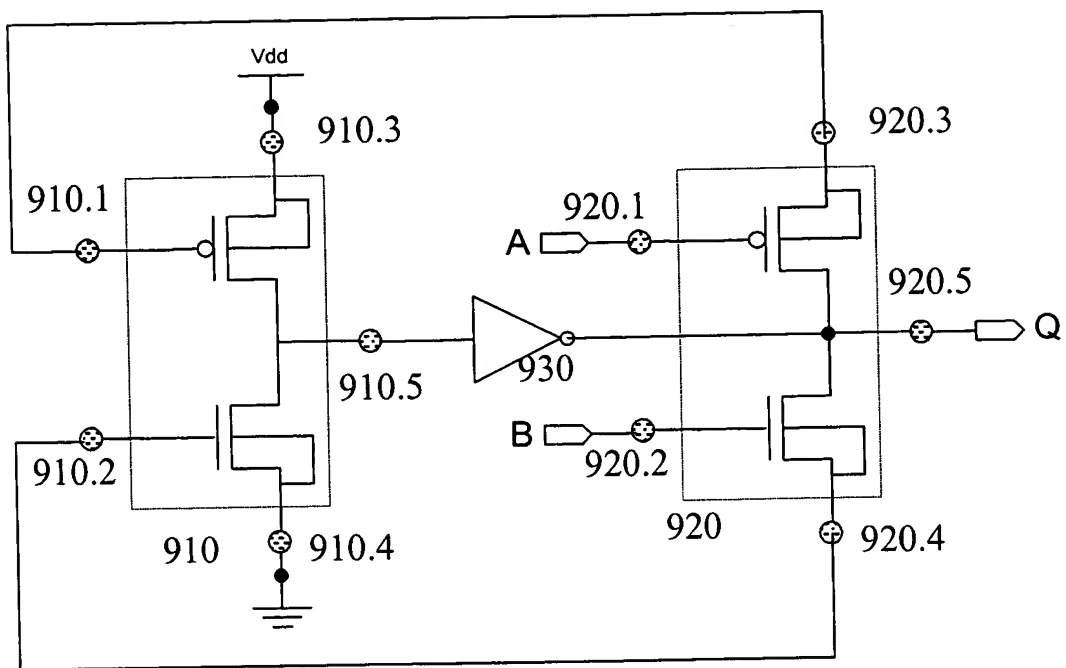


Figure 9

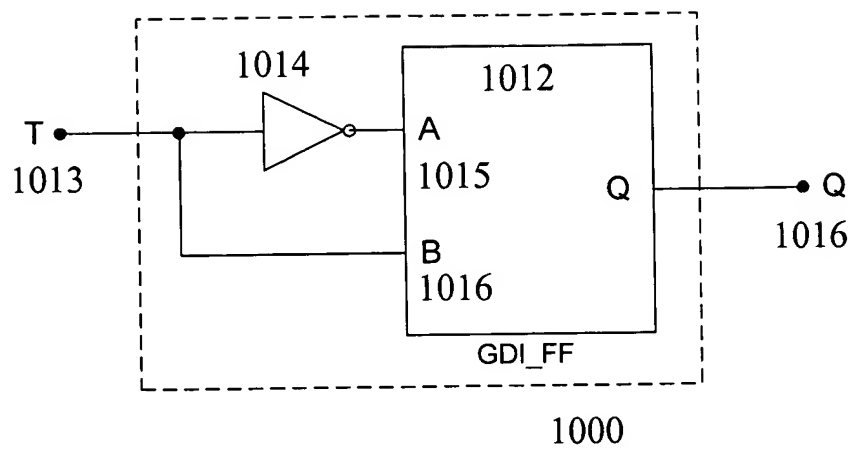


Figure 10a

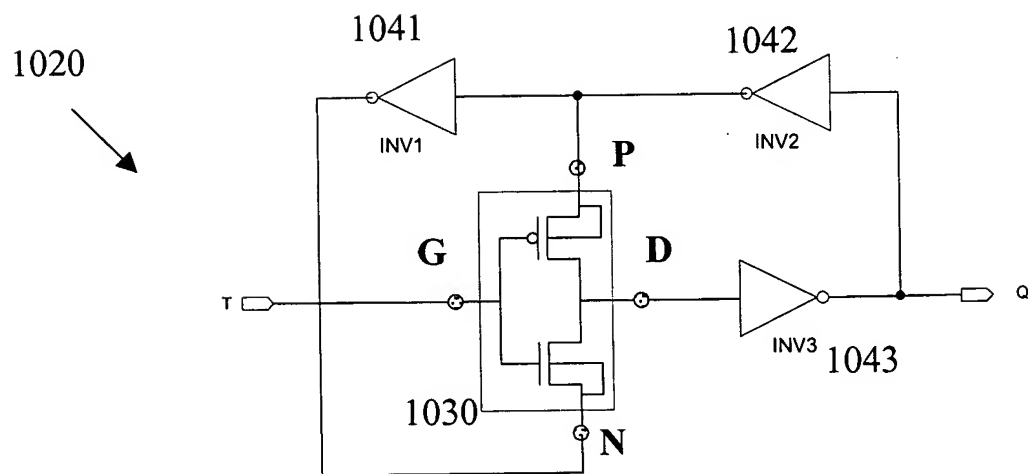


Figure 10b

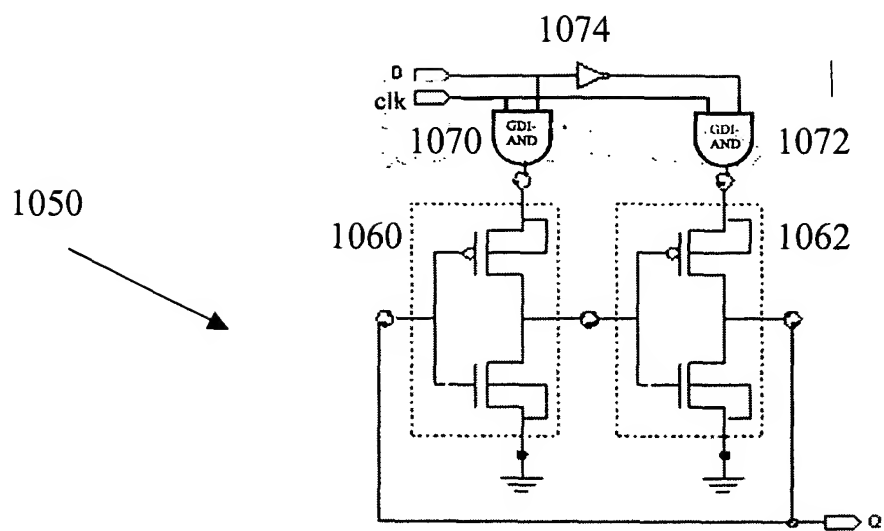


Figure 10c

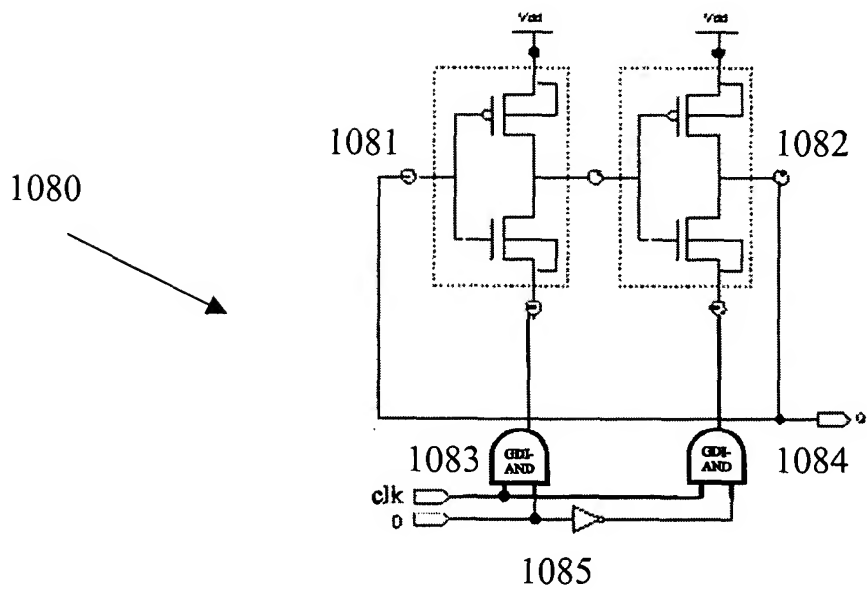


Figure 10d

1090

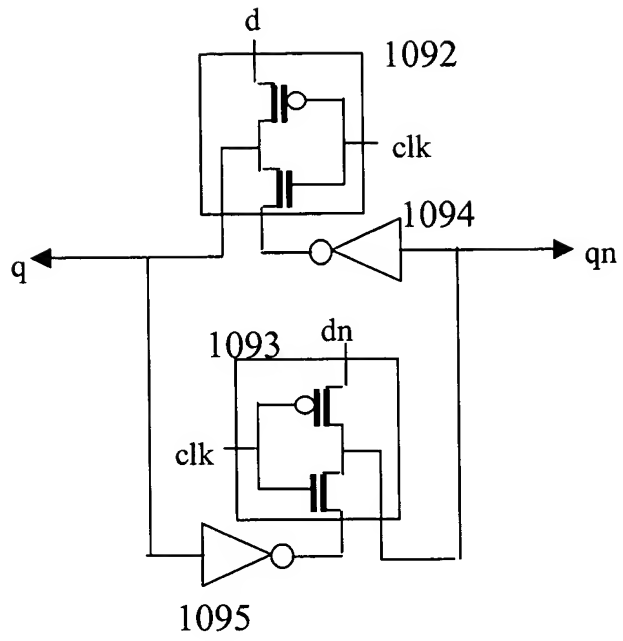


Figure 10e

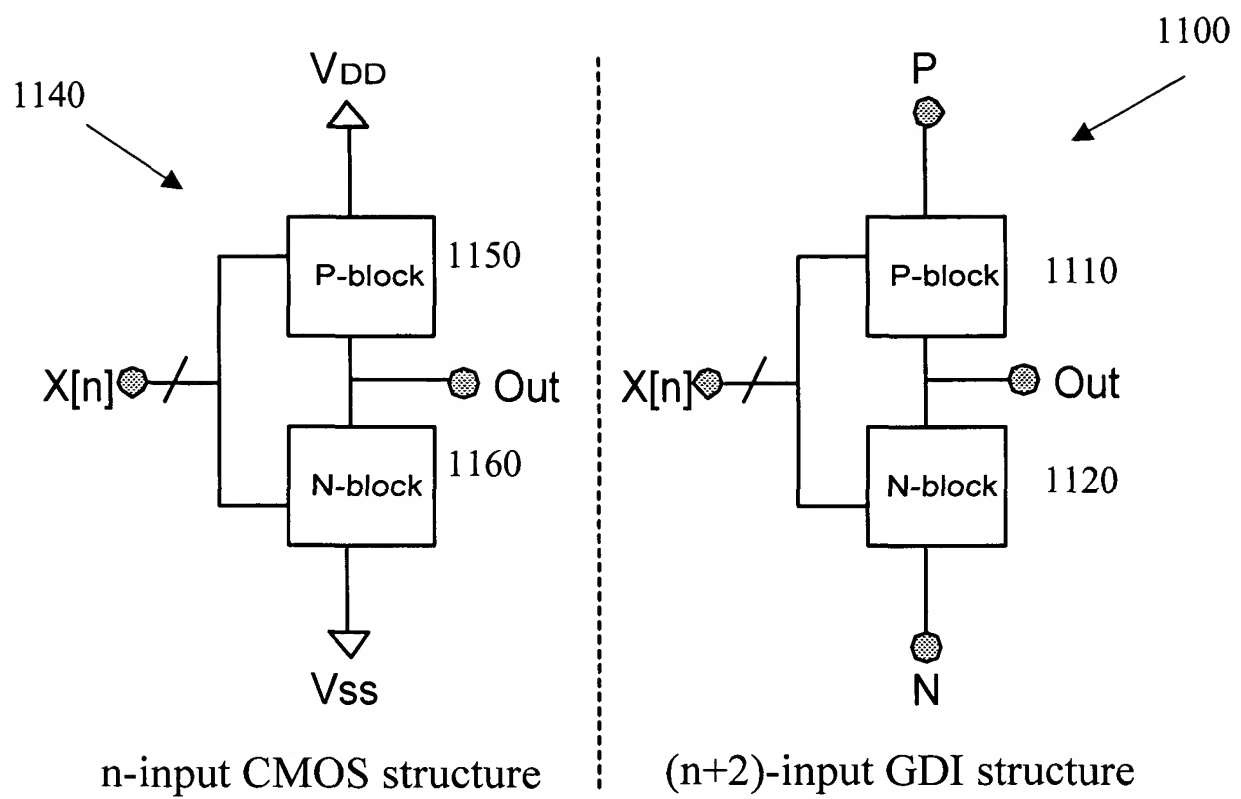
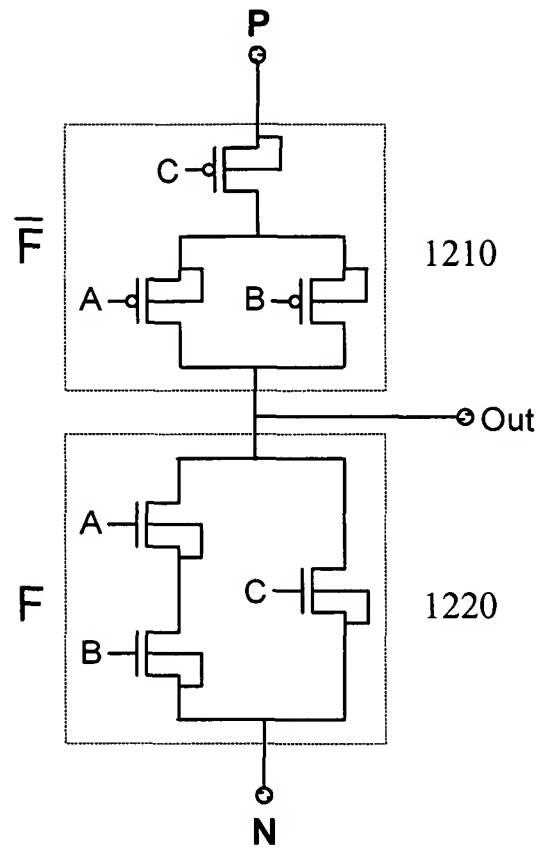


Figure 11

1200



$$\text{Out} = \overline{F}P + FN = \overline{(AB+C)}P + (AB+C)N$$

Figure 12

1300

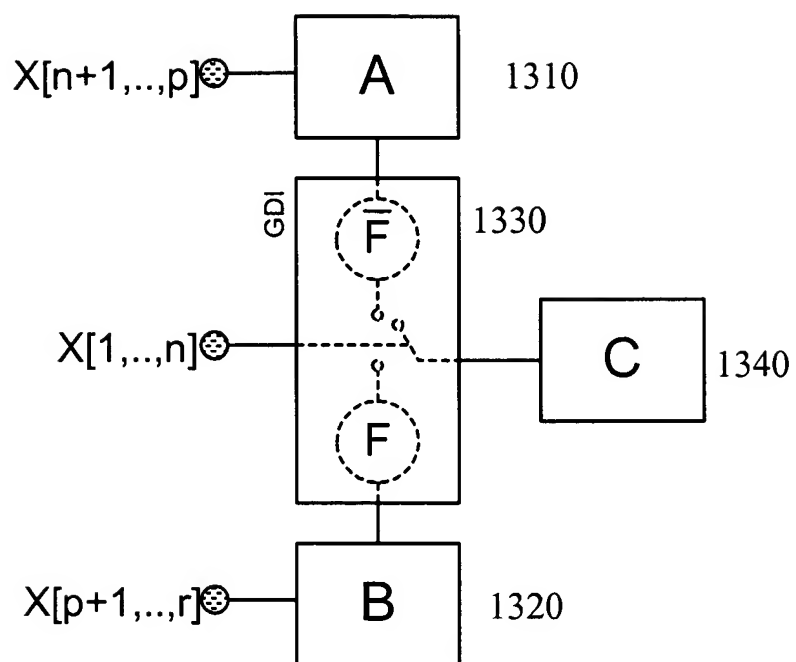


Figure 13

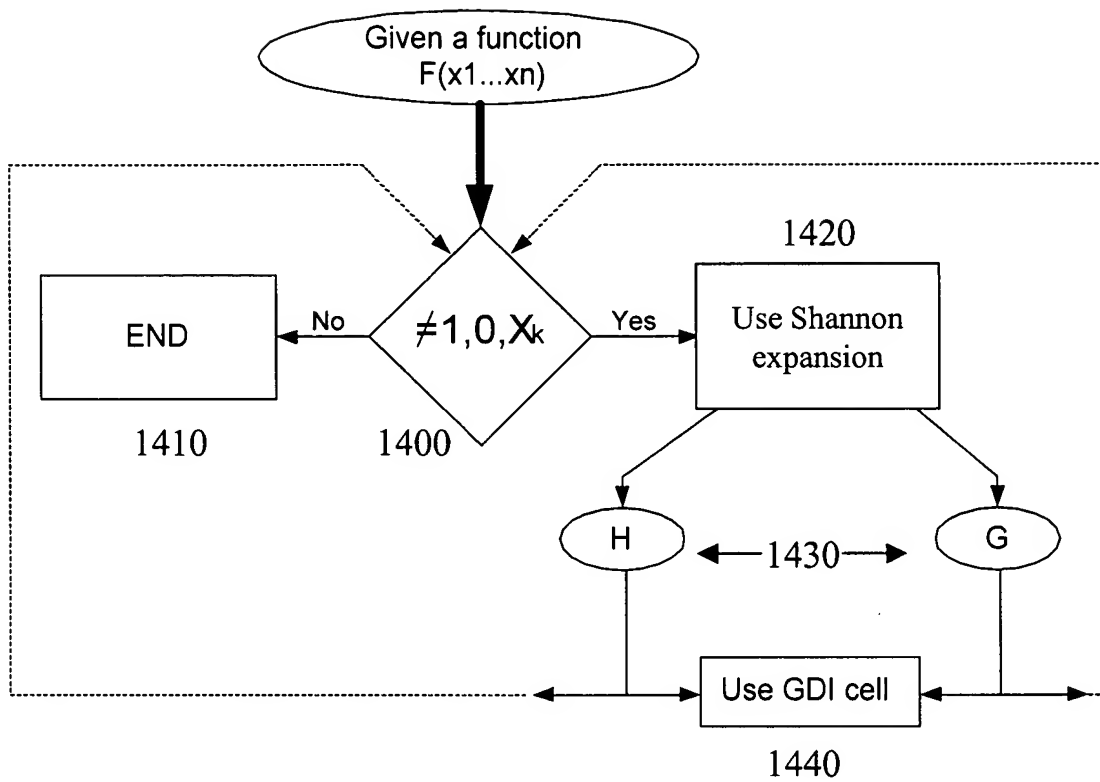


Figure 14

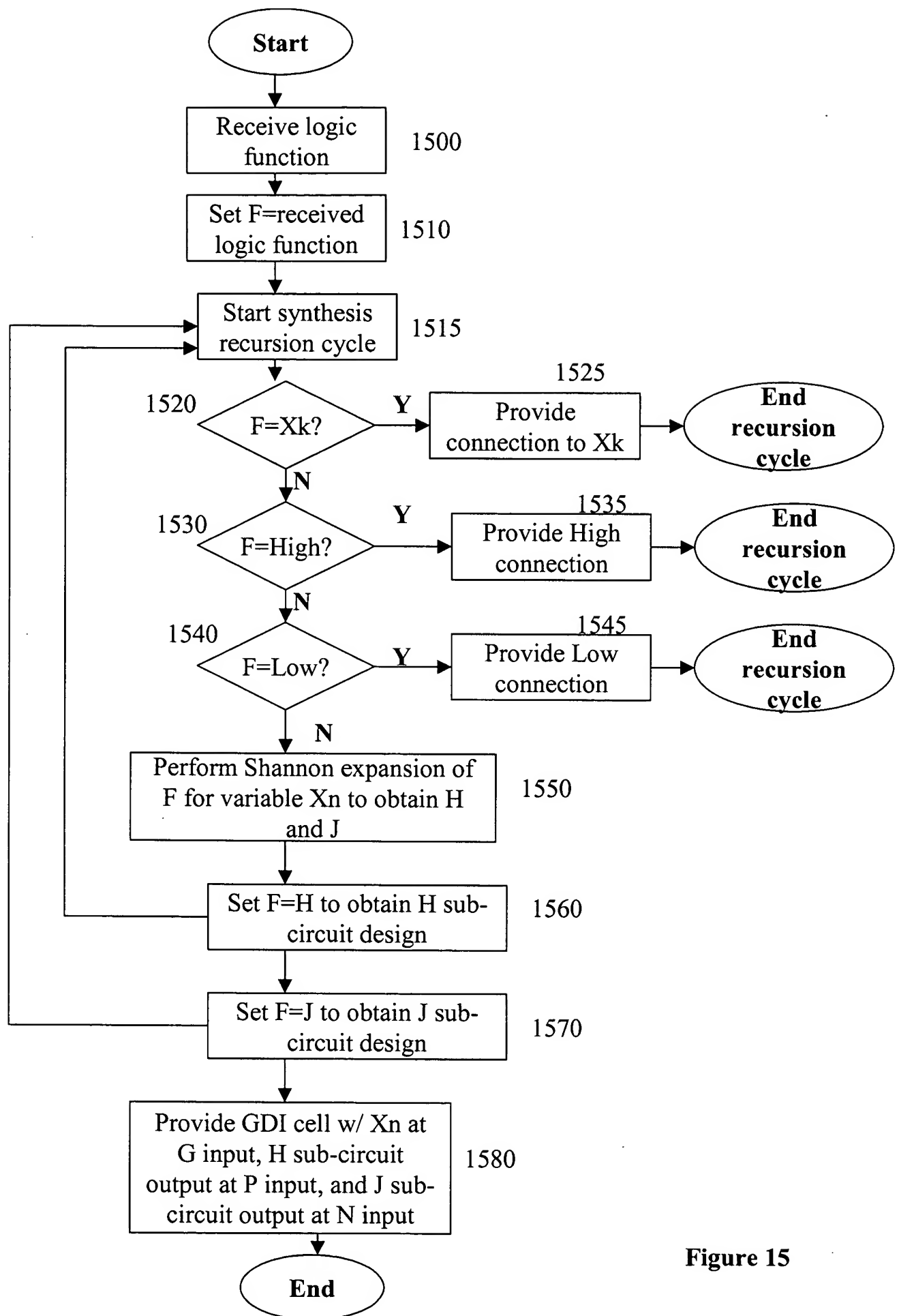


Figure 15

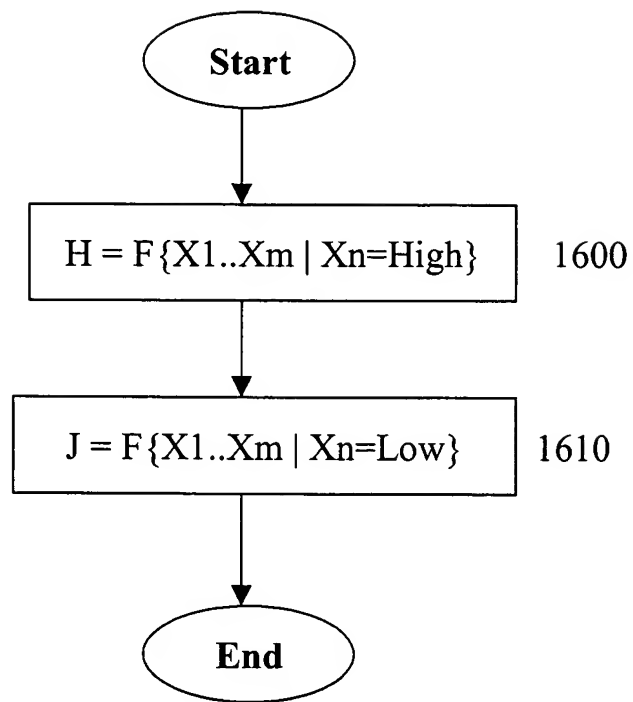


Figure 16

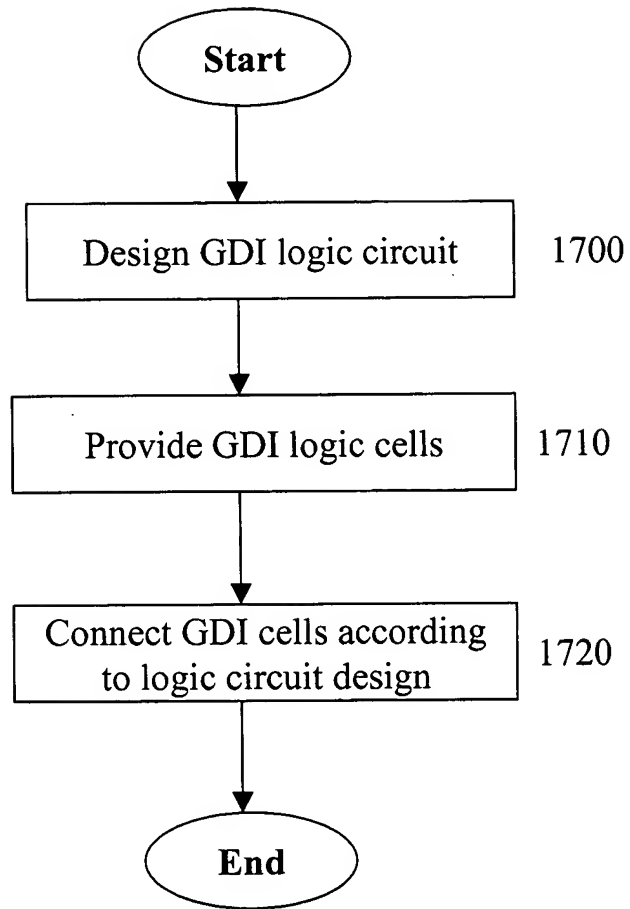
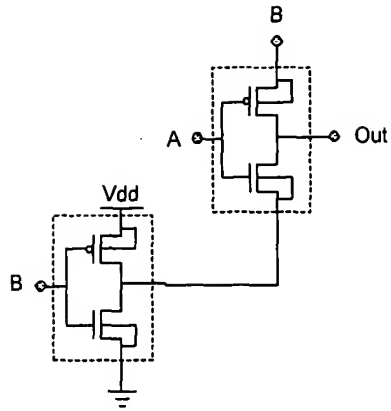
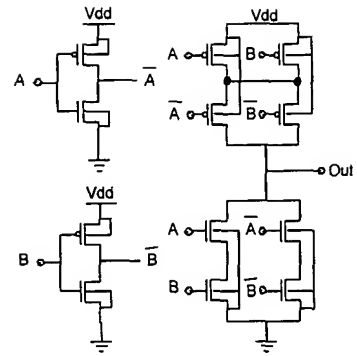


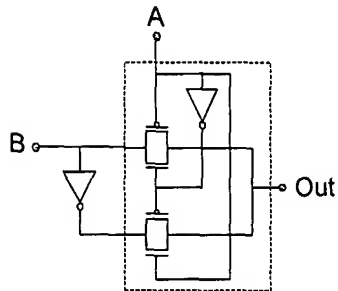
Figure 17



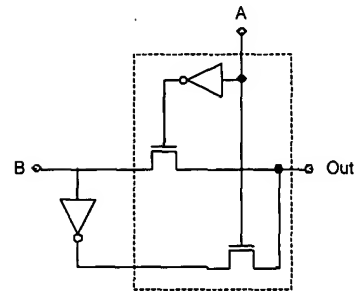
GDI
4 transistors



CMOS – Prior art
12 transistors



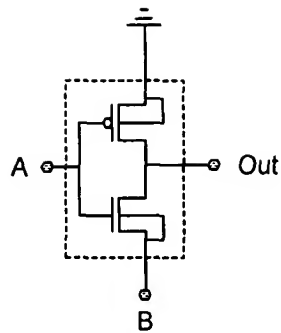
TG – Prior art
8 transistors



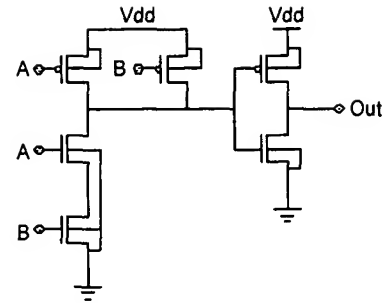
N-PG – Prior art
6 transistors

XOR gate

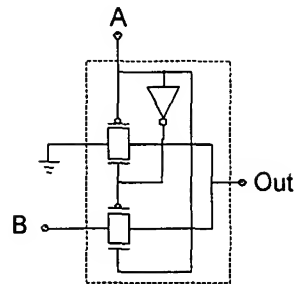
Figure 18a



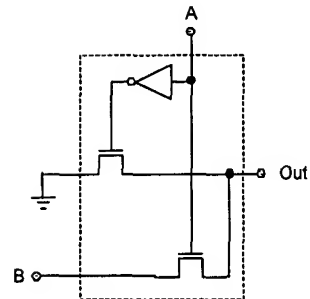
GDI
2 transistors



CMOS - Prior art
6 transistors



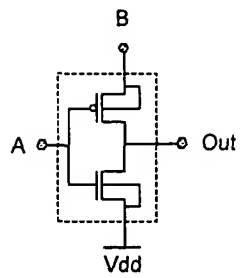
TG - Prior art
6 transistors



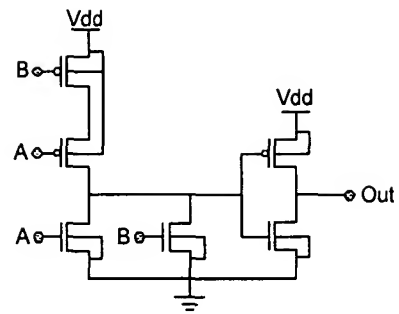
N-PG - Prior art
4 transistors

AND gate

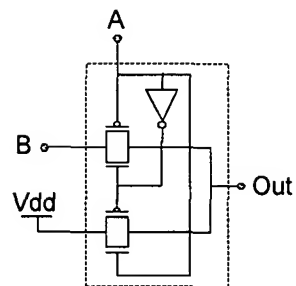
Figure 18b



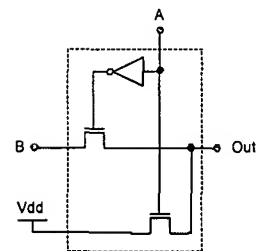
GDI
2 transistors



CMOS - Prior art
6 transistors



TG - Prior art
6 transistors



N-PG - Prior art
4 transistors

OR gate

Figure 18c

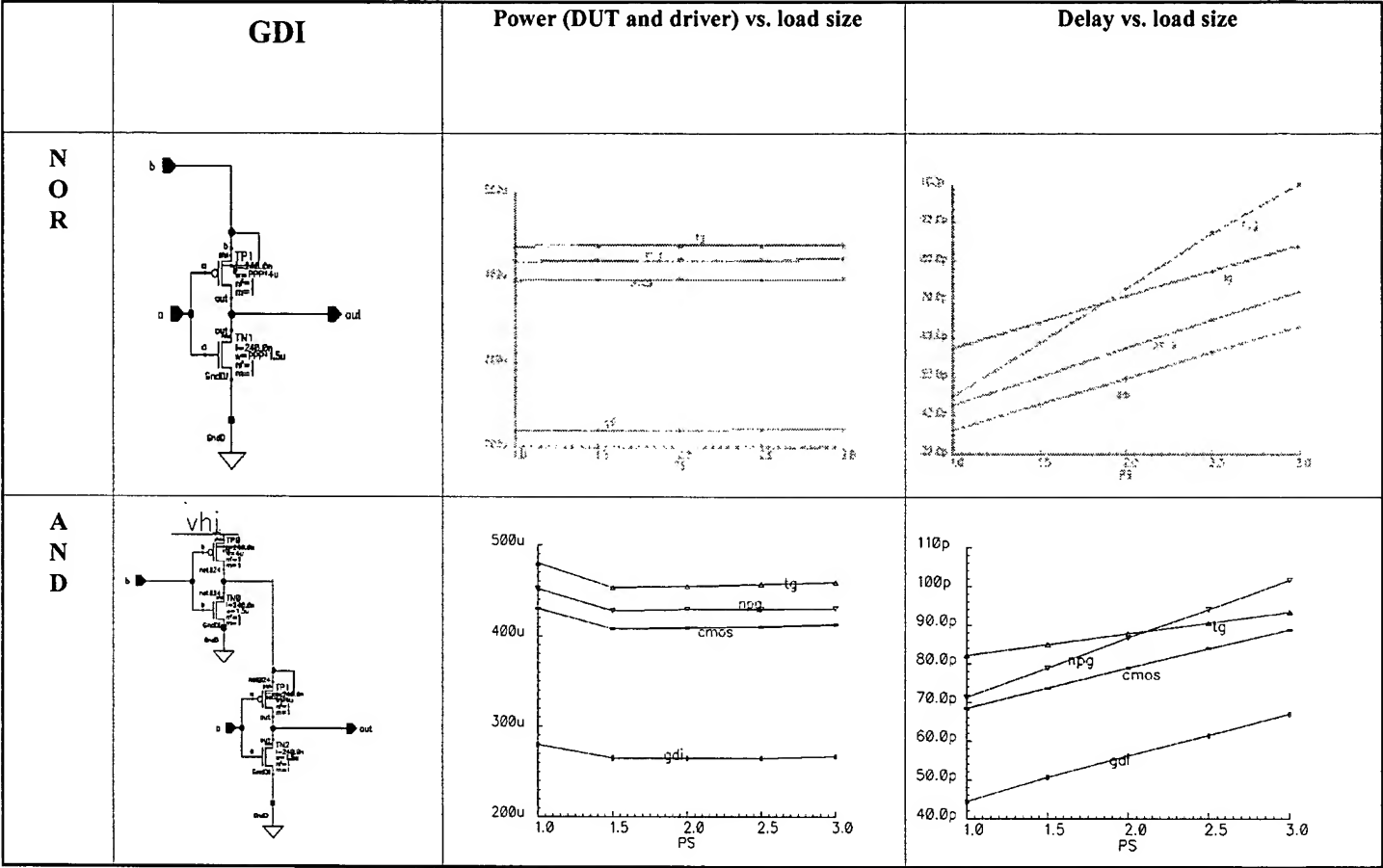


Figure 19

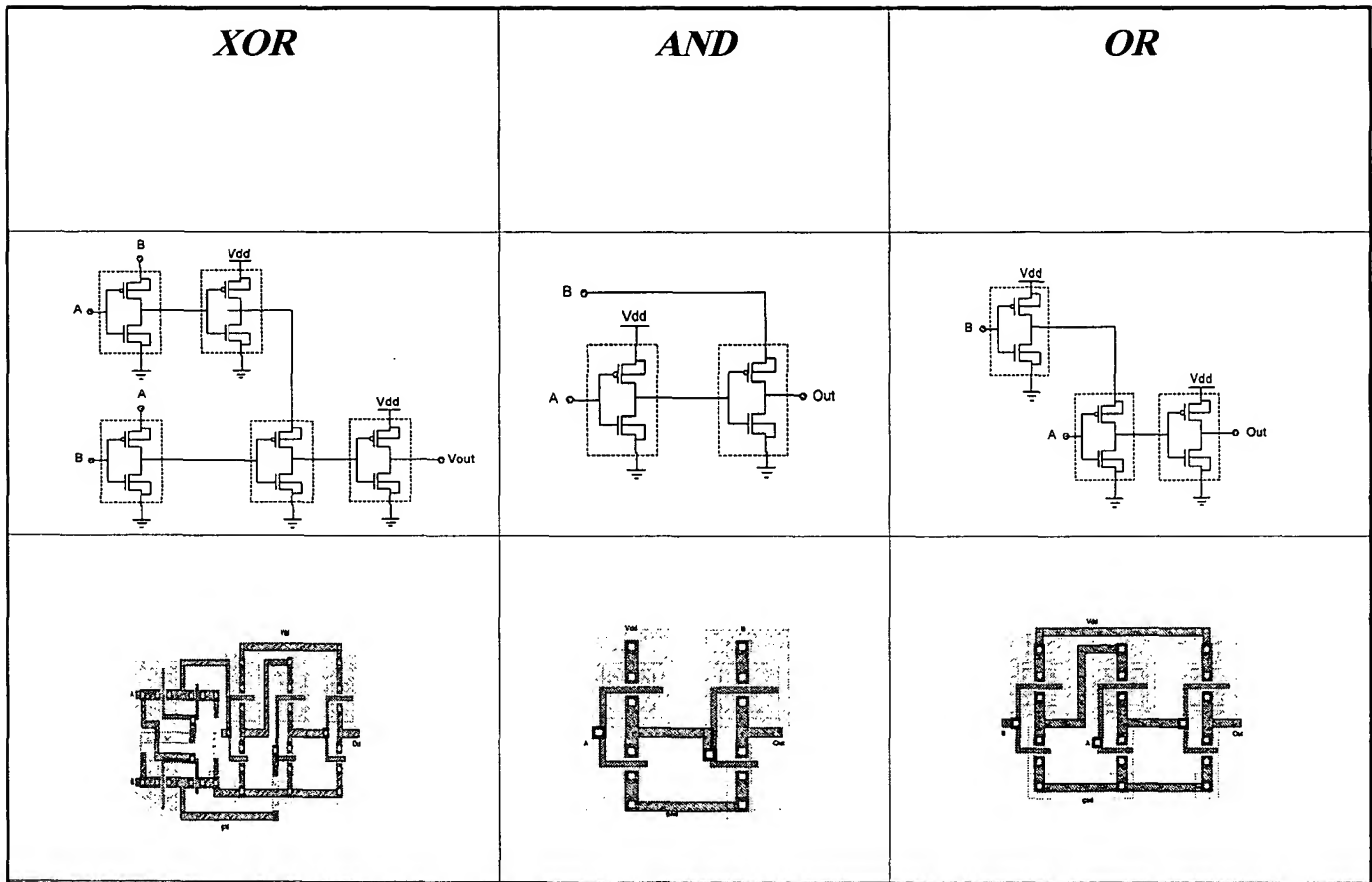
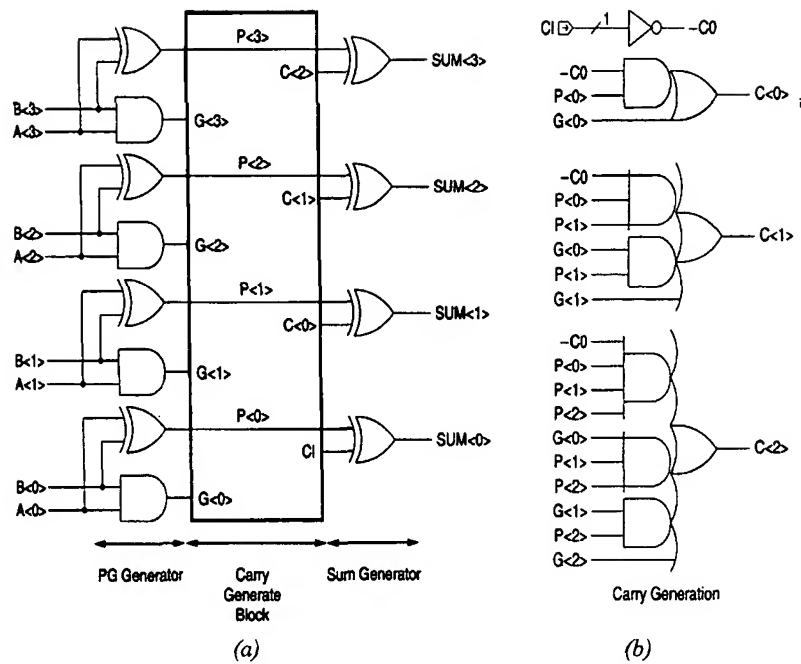


Figure 20



a) Basic scheme

b) Carry Generator
(3-bit only)

Figure 21 – Prior art

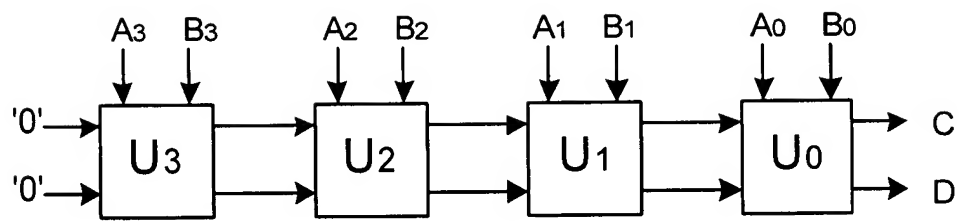


Figure 22 – Prior art

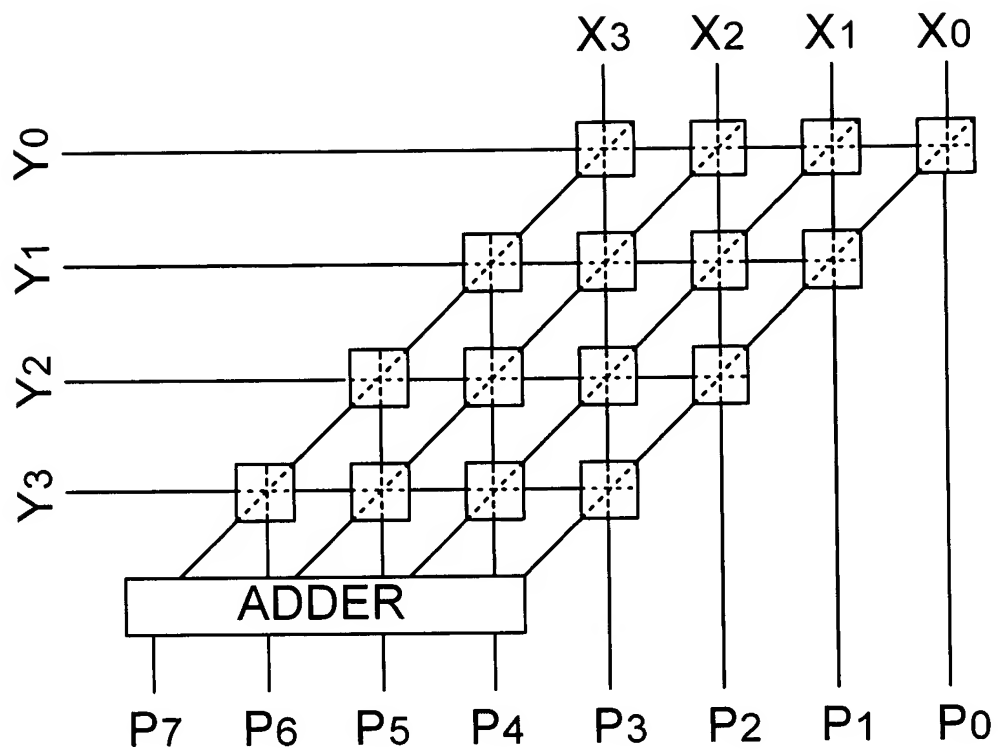


Figure 23 – Prior art

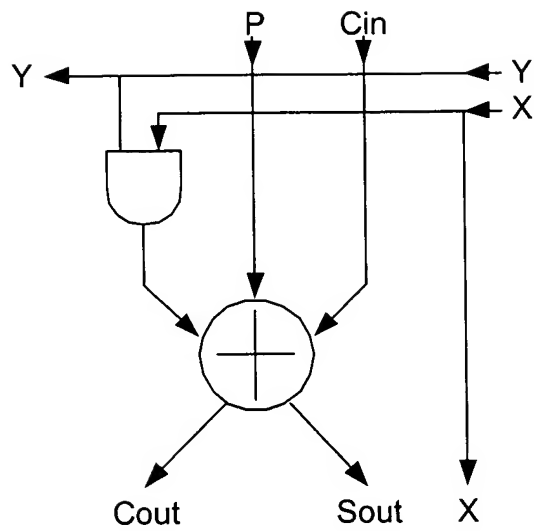
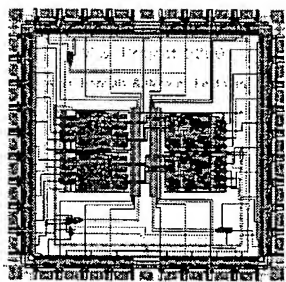
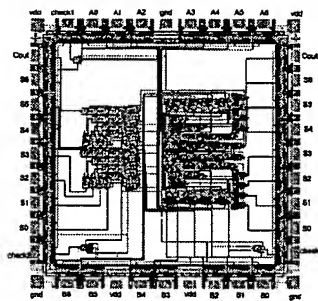


Figure 24 – Prior art



a) GDI and prior art CMOS



b) GDI and prior art TG

Figure 25

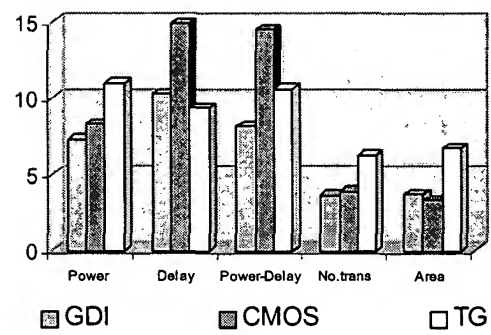


Figure 26

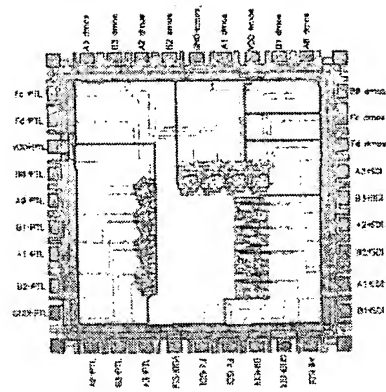


Figure 27

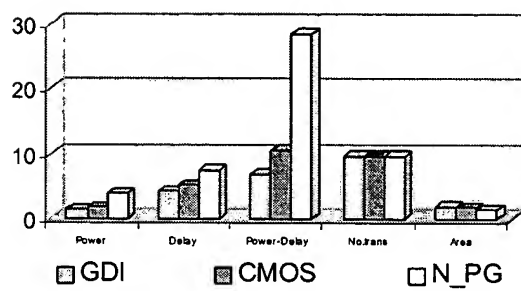


Figure 28

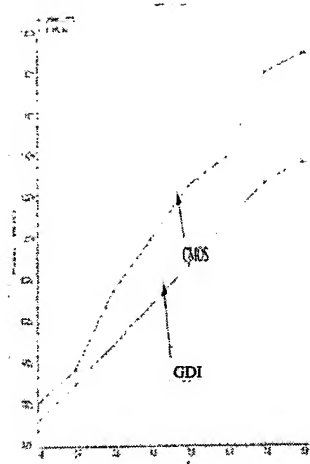


Figure 29

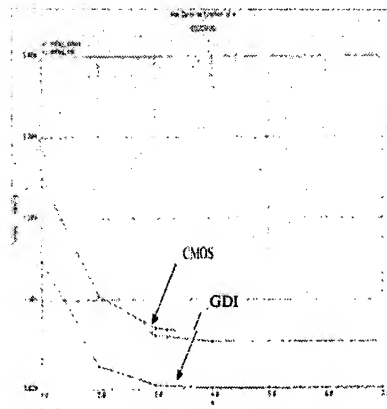


Figure 30

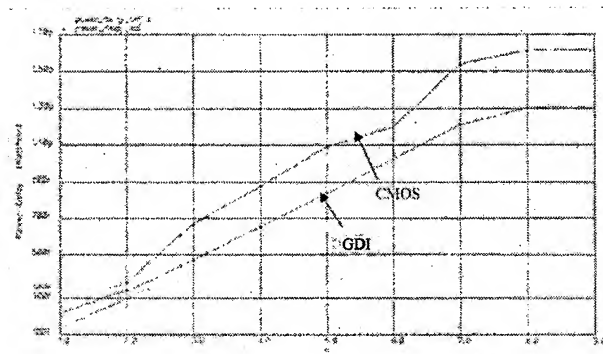


Figure 31

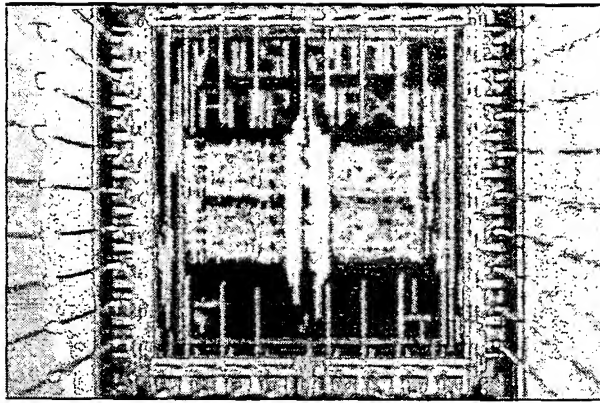


Figure 32

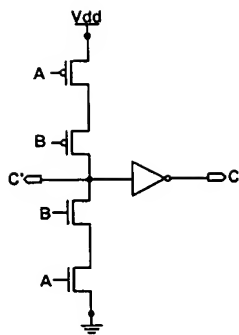


Figure 33a - Prior art

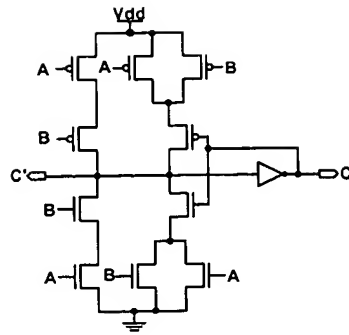


Figure 33b - Prior art

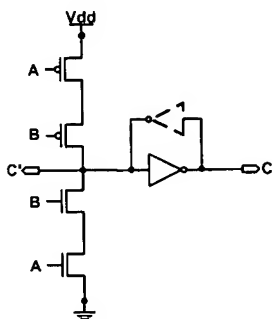


Figure 33c - Prior art

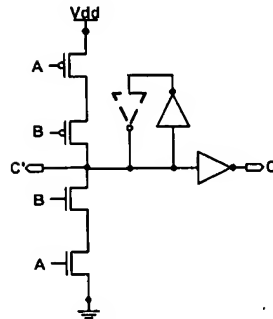


Figure 33d - Prior art

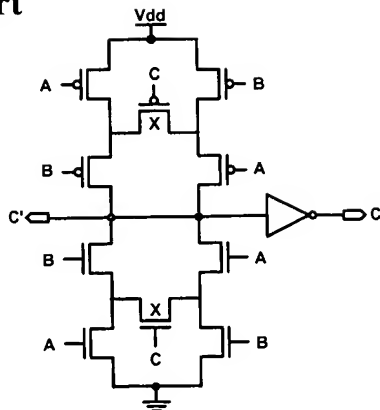


Figure 33e - Prior art

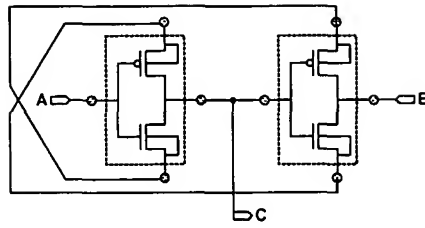


Figure 34a

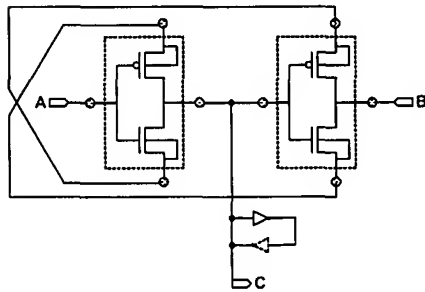


Figure 34b

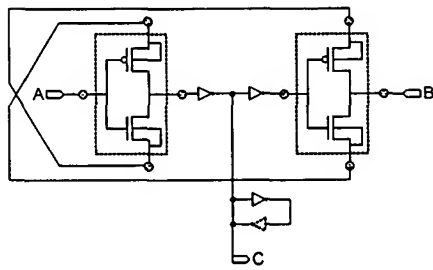


Figure 34c

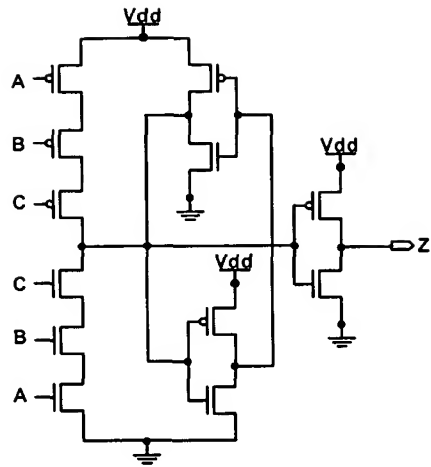


Figure 35a CMOS – Prior art

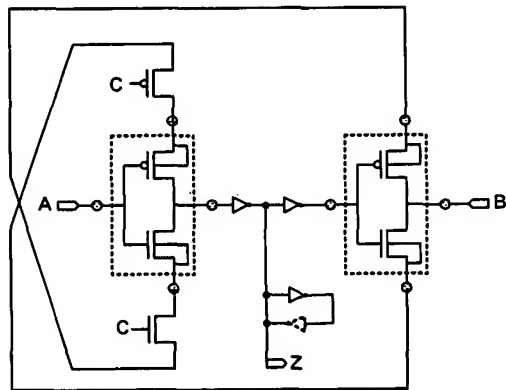


Figure 35b GDI

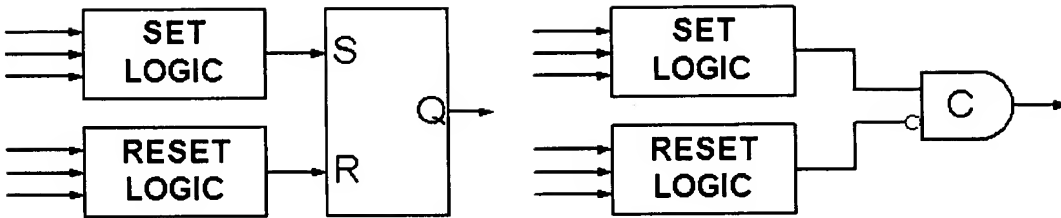


Figure 36 – Prior art

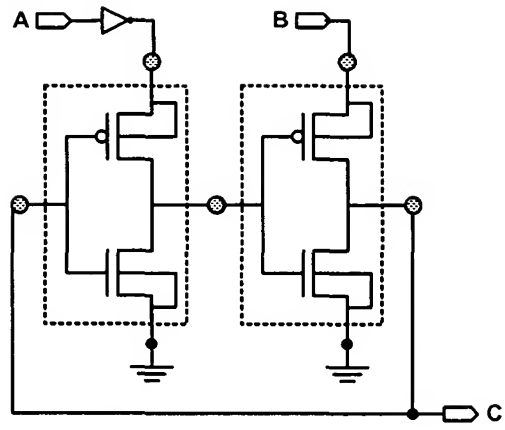


Figure 37a

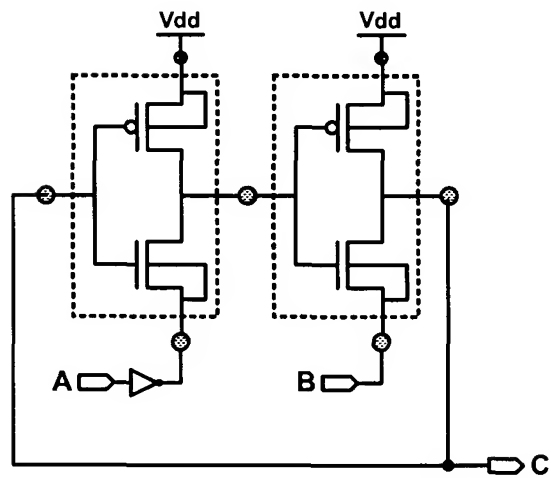
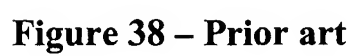


Figure 37b



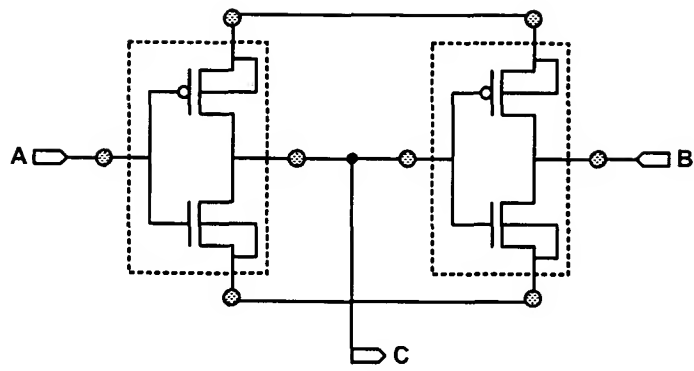


Figure 39

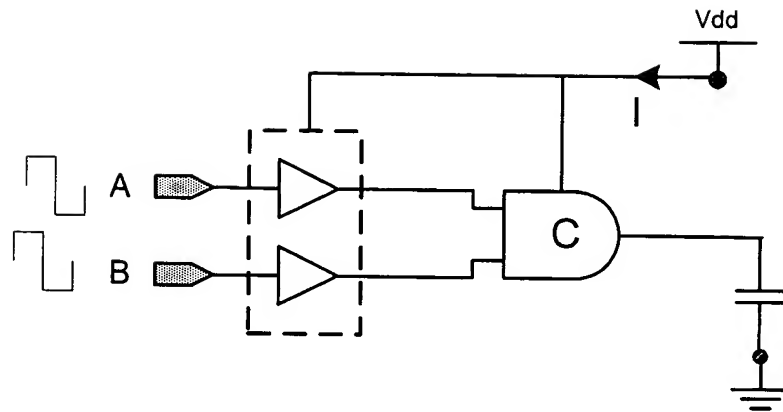


Figure 40

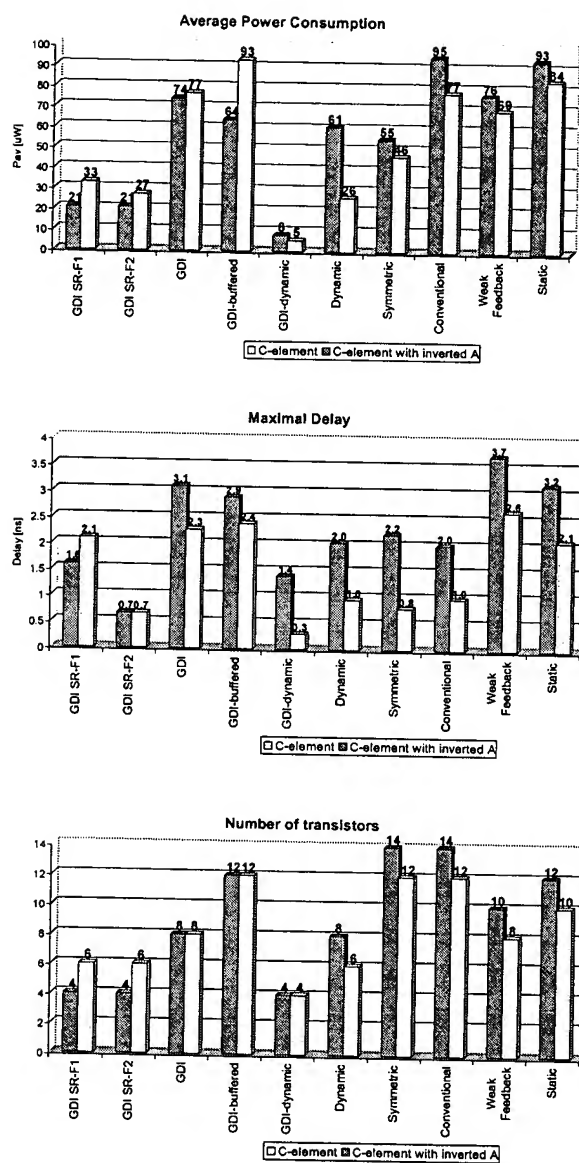


Figure 41

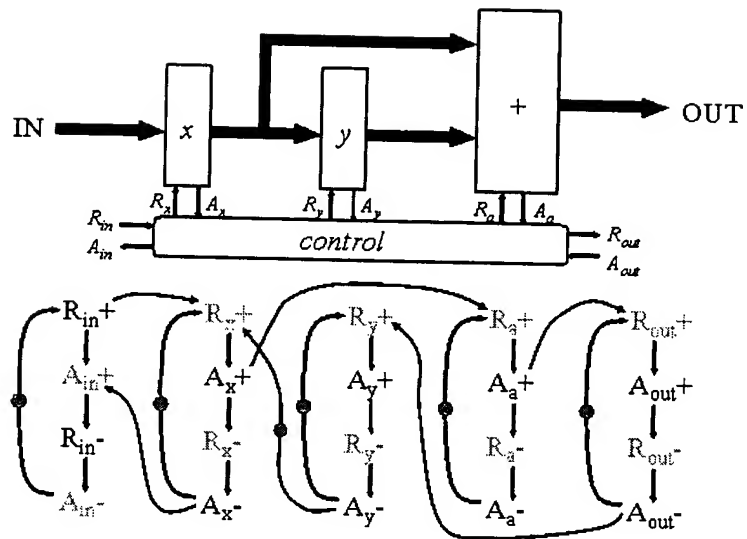


Figure 42 – Prior art

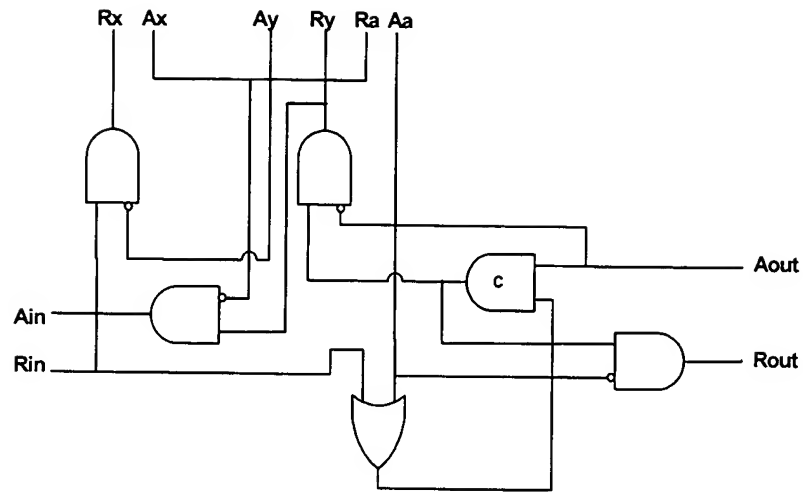


Figure 43a – Prior art

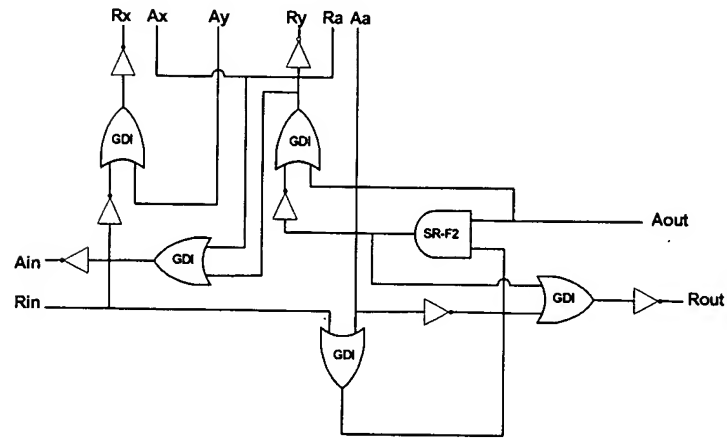


Figure 43b – Prior art

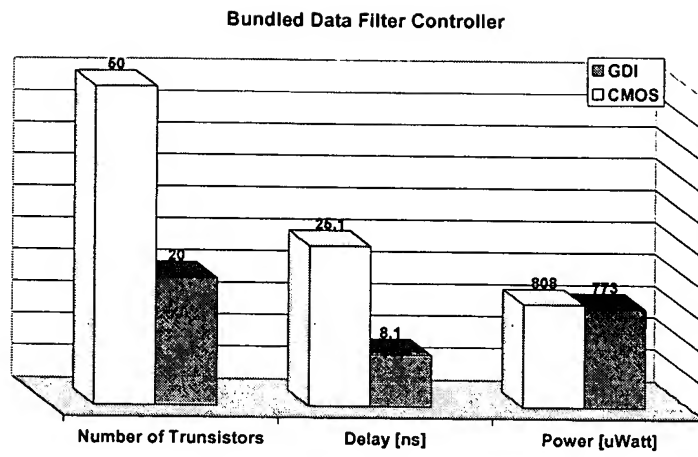


Figure 44

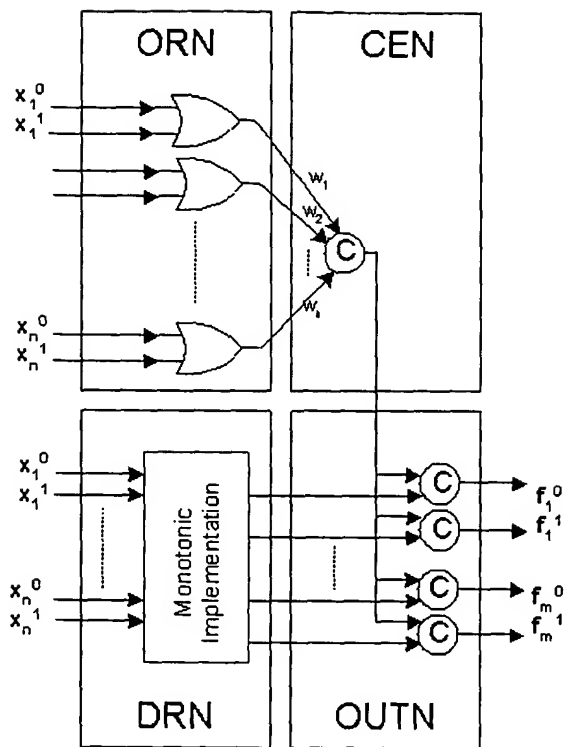
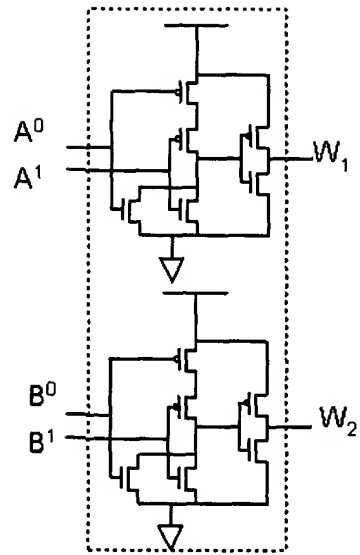
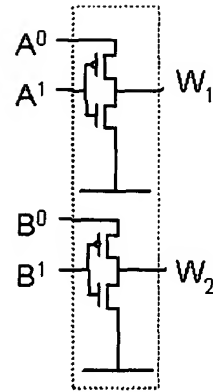


Figure 45 – Prior art

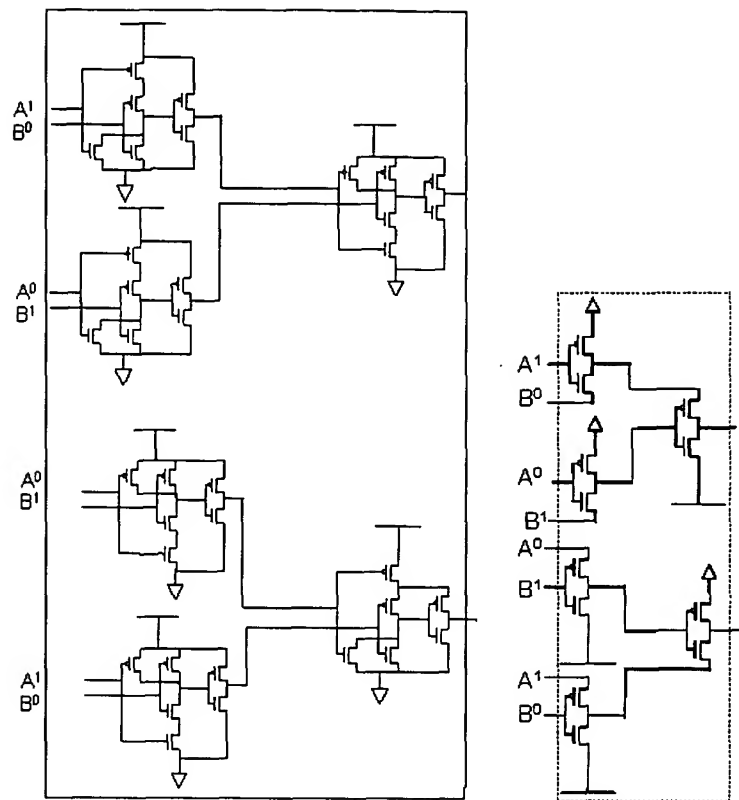


CMOS - Prior art



GDI

Figure 46



CMOS - Prior art

GDI

Figure 47

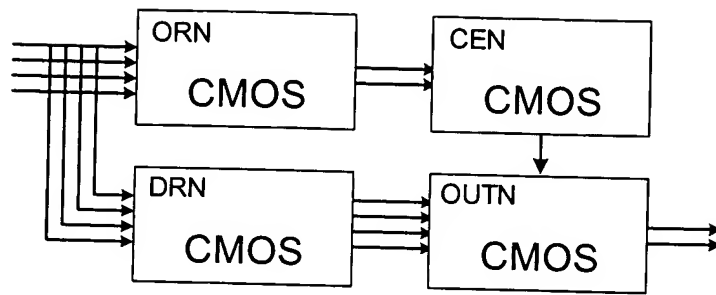


Figure 48a

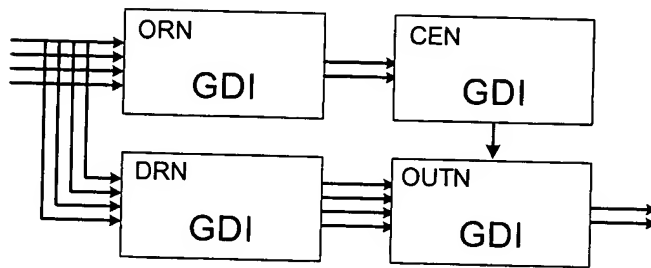


Figure 48b

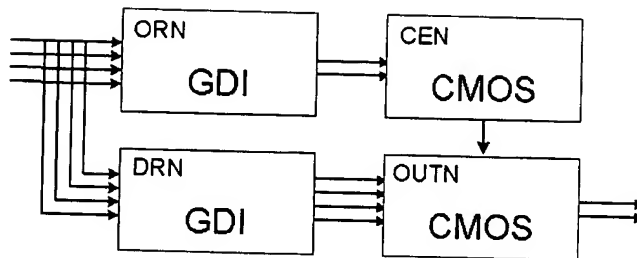


Figure 48c

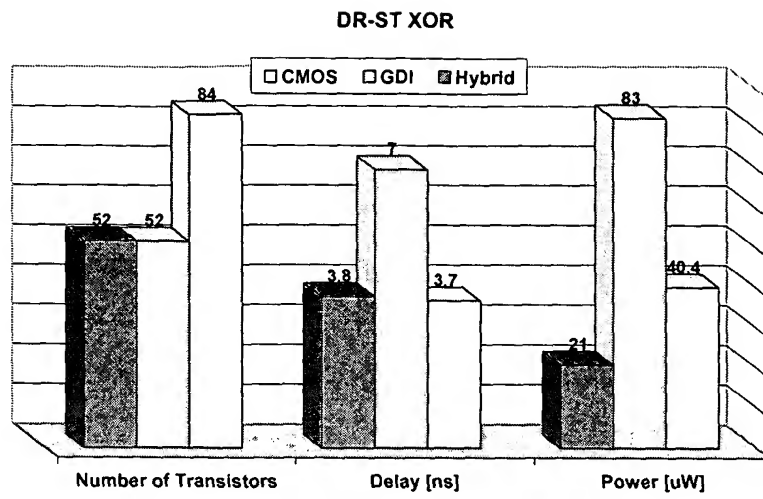
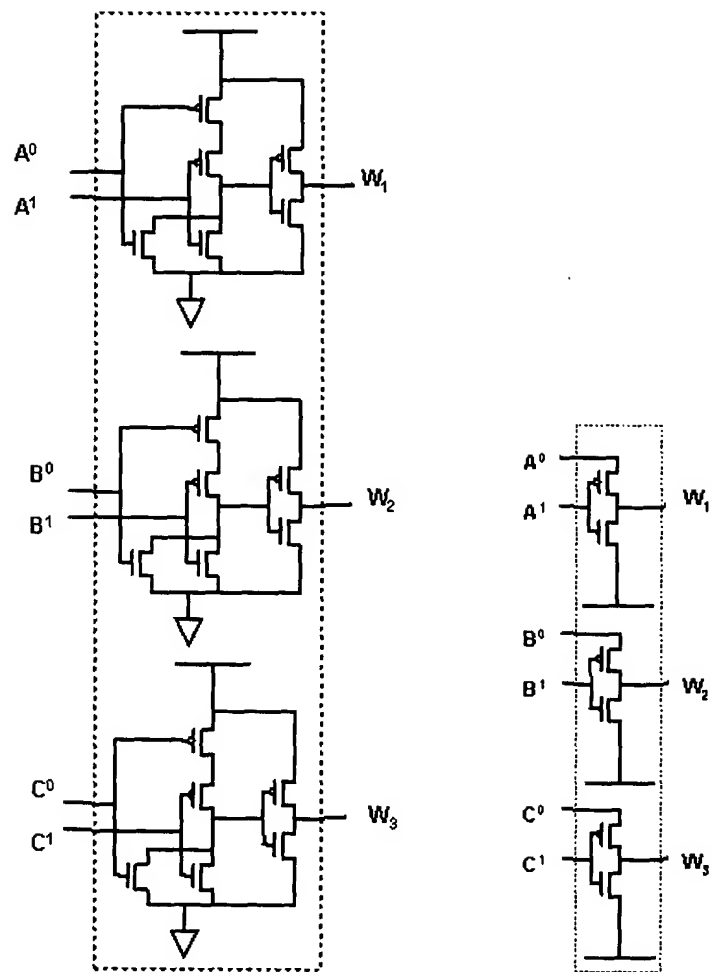


Figure 49



CMOS - Prior art

GDI

Figure 50

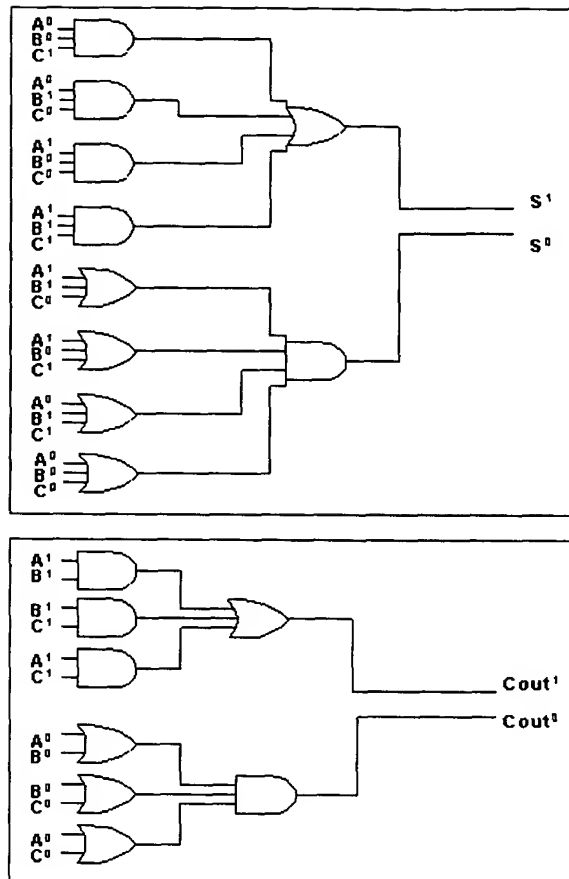


Figure 51 – Prior art

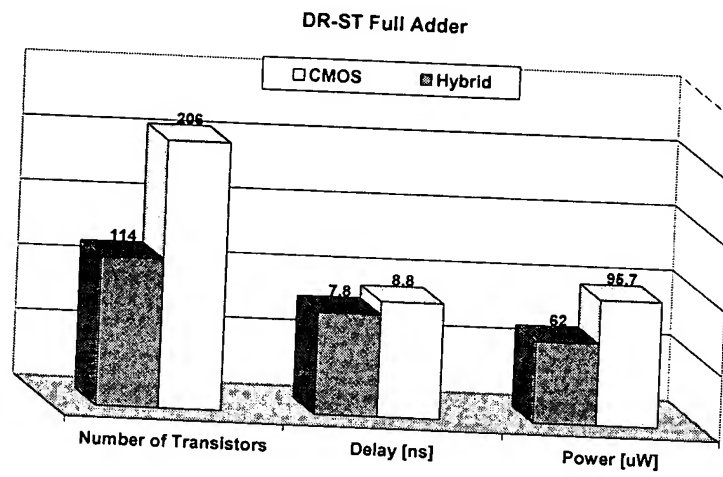


Figure 52

5300

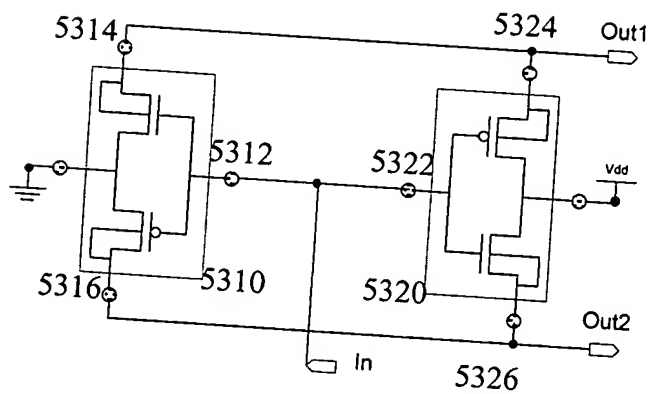


Figure 53